



12DV8

TWIN DIODE-POWER TETRODE

9-PIN MINIATURE TYPE

For use in automobile radio receivers operating directly
from 6-cell storage-battery systems

12DV8

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage range (DC). 10 to 15.9 volts

*This voltage range is on an absolute basis. For longest
life, it is recommended that the heater be operated with-
in the voltage range of 11 to 14 volts.*

Current (Approx.) at 12.6 volts . . . 0.375 amp

Direct Interelectrode Capacitances:^o

Tetrode Unit:

Grid No.2 to plate. 12 μ f

Grid No.2 to cathode, grid No.1,
and heater. 9 μ f

Plate to cathode, grid No.1,
and heater. 1 μ f

Diode Units:

Plate of unit No.1 to cathode &
internal shield, and heater . . . 1.7 μ f

Plate of unit No.2 to cathode &
internal shield, and heater . . . 1.6 μ f

Plate of unit No.1 to plate of
unit No.2 0.1 max. μ f

Tetrode grid No.2 to either
diode plate 0.015 max. μ f

Characteristics, Class A₁ Amplifier (Tetrode Unit):

Heater Voltage. 12.6 volts

Plate Supply Voltage. 12.6 volts

Grid-No.2 (Control-grid) Resistor . . . 4.7 megohms

Grid-No.1 (Space-charge-grid)

Supply Voltage. 12.6 volts

Cathode Resistor. 18 ohms

Plate Resistance (Approx.). 900 ohms

Amplification Factor, Grid No.2

to Plate. 7.6

Transconductance, Grid No.2 to Plate. . 8500 μ mhos

Plate Current 9 ma

Grid-No.1 Current 53 ma

Mechanical:

Operating Position. Any

Maximum Overall Length. 2-5/8"

Maximum Seated Length. 2-3/8"

Length, Base Seat to Bulb Top (Excluding tip) . . 2" $\pm$ 3/32"

Diameter. 0.750" to 0.875"

Dimensional Outline See General Section

Bulb. T6-1/2

^o Without external shield.

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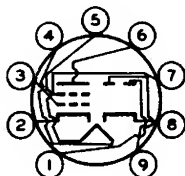


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TWIN DIODE-POWER TETRODE

Base. Small-Button Noval 9-Pin (JEDEC No.E9-1)
 Basing Designation for BOTTOM VIEW. 9HR

Pin 1 - Plate of Diode
 Unit No.2
 Pin 2 - Cathode of
 Tetrode Unit
 Pin 3 - Grid No.1 of
 Tetrode Unit
 Pin 4 - Heater
 Pin 5 - Heater
 Pin 6 - Plate of
 Tetrode Unit



Pin 7 - Grid No.2 of
 Tetrode Unit
 Pin 8 - Cathode of
 Diode Units
 No.1 & No.2,
 Internal
 Shield
 Pin 9 - Plate of Diode
 Unit No.1

TETRODE UNIT — AUDIO DRIVER

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE	16 max.	volts
GRID-No.2 (CONTROL-GRID) VOLTAGE:		
Negative-bias value	16 max.	volts
GRID-No.1 (SPACE-CHARGE-GRID) VOLTAGE .	16 max.	volts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode.	16 max.	volts
Heater positive with respect to cathode.	16 max.	volts

Typical Operation:

Heater Voltage.	12.6	volts
Plate Supply Voltage.	12.6	volts
Grid-No.1 Supply Voltage.	12.6	volts
Grid-No.2 Resistor.	4.7	megohms
Cathode Resistor.	18	ohms
Peak AF Grid-No.2 Supply Voltage (Approx.):		
From 0.3-megohm signal source	1.2	volts
Indicated-Signal Plate Current.	6.8	ma
Grid-No.1 Current	54	ma
Load Resistance	1250	ohms
Total Harmonic Distortion	3	%
Indicated-Signal Power Output	5	mW

Maximum Circuit Values:

Grid-No.2-Circuit Resistance.	10 max.	megohms
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DIODE UNITS — Two

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

PLATE CURRENT	5 max.	ma
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PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode.	16 max.	volts
Heater positive with respect to cathode.	16 max.	volts

Characteristics:

Heater Voltage.	12.6	volts
Plate Current for plate volts = 10. . .	3	ma